**Operators and loops**

1. What are the Conditional Operators in Java

Ans- They are used when a condition comprises more than one boolean expression. For instance, if we want to

print a number only if it is greater than 2 and less than 5, then we will use conditional operators to combine the

2 expressions. We have 3 types of conditional operators - logical-and, logical-or and ternary operator.

Logical-and operator (&&)

It is used when we want the condition to be true iff both the expressions are true.

Syntax

if(condition - 1 && condition - 2) {

statement;

}

Logical-or operator (||)

This operator is used when we are satisfied as long as any one of the boolean expressions is evaluated as true.

Syntax

if(condition - 1 || condition - 2) {

statement;

}

Ternary operator (?:)

It is a smaller version for the if-else statement. If the condition is true then the statement - 1 is executed else the

statement - 2 is executed.

Syntax

condition ? statement - 1 : statement - 2;

1. What are the types of operators based on the number of operands

Ans- There are three types of operators in java based on the number of operands.

* Binary operator
* Ternary operator

Unary operator

1. What is the use of Switch case in Java programming

Ans- Switch statement-

The switch case in java is used to select one of many code blocks for execution

public class Main {

public static void main(String[] args) {

int month = 4;

switch (month) {

case 1:

System.out.println("January");

break;

case 2:

System.out.println("February");

break;

case 3:

System.out.println("March");

break;

case 4:

System.out.println("April");

break;

case 5:

System.out.println("May");

break;

case 6:

System.out.println("June");

break;

default: System.out.println("In next half");

}

}

}

Output

April

1. What are the priority levels of arithmetic operation in Java

Ans- There are two priority levels of arithmetic operation in java. They are as follows

High priority ⇒ \* /

Low priority ⇒ + –

1. What is the syntax of if else statement-

Ans- if (condition1) {

// block of code to be executed if condition1 is true

} else if (condition2) {

// block of code to be executed if the condition1 is false and condition2 is true

} else {

// block of code to be executed if the condition1 is false and condition2 is false

}

1. What are the conditional Statements and use of conditional statements in Java

Ans- if to specify a block of code to be executed, if a specified condition is true

else to specify a block of code to be executed, if the same condition is false

else if to specify a new condition to test, if the first condition is false

switch to specify many alternative blocks of code to be executed

1. What are the 3 types of iterative statements in java

Ans-

3 types of iterative statements in jav

for loo

while loo

do-while loop

8.Write the difference between for loop and do-while loop Write a program to print numbers from 1 to 10

Ans- FOR LOOP:-

for loop is used when you know in advance how many times you want to execute the block of code.

It iterates over a sequence (e.g., a list, tuple, string, or range) and executes the block of code for each item in the sequence.

The loop variable (variable) takes the value of each item in the sequence during each iteration.

For Loop Syntax:

for (initialization; condition; increment/decrement) {

// Code to be executed repeatedly

}

DO WHILE LOOP :-

The do-while loop is similar to the while loop, but with one key difference: it guarantees that the block of code will execute at least once before checking the condition.

This makes it useful when you want to ensure that a certain task is performed before evaluating a condition for continuation.

The loop continues to execute as long as the specified condition is true after the first execution. It’s crucial to ensure that the condition eventually becomes false to prevent the loop from running indefinitely, leading to an infinite loop.

Syntax of do…while Loop:

do {

// body of do-while loop

} while (condition);